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BIBLIOGRAPHY OF BUREAU OF MINES INVESTIGATIONS OF COAL AND ITS PRODUCTS, 1950 TO 1955

BY E. P. CARMAN AND FRANCES S. BAYES

United States Department of the Interior — April 1958

PREFACE

Publications concerning Bureau of Mines investigations of coal and its products from 1910, when the Bureau was established, to January 1, 1935, are listed in Technical Paper 576. Technical Paper 639 lists these publications from 1935 to January 1, 1940; Technical Paper 698 lists those from 1940 to January 1, 1945, and Bulletin 528 gives those from January 1, 1945 to January 1, 1950. The present publication covers the 5 years from January 1, 1950 to January 1, 1955. In addition, a few references that were inadvertently omitted from previous bibliographies are given for material published before 1950.

The investigations are described in printed or mimeographed publications issued by the Government Printing Office or the Bureau of Mines and in articles by staff members published in periodicals, books, and journals distributed by the technical press.

The publications have been classified according to subject. Within each subject classification the papers are separated into groups based on the medium of publication and are arranged, within each group, alphabetically by authors. The publications issued by the Government include bulletins, technical papers, miners' circulars, the Minerals Yearbook, handbooks, schedules, the Director's annual report, reports of investigations, information circulars, special reports, and various periodic economics reports detailed under the section headed Economics and Statistics.

In general, bulletins contain original scientific or technical results of studies of major problems. Technical papers are similar to bulletins but are limited to definite subdivisions of major problems and as a rule are shorter than bulletins. They were discontinued in 1950, but one in process of publication was issued during the period of this bibliography. Minerals Yearbook presents an economic review and statistical summary of the mineral industry of the United States for the calendar year reviewed. Handbooks are special manuals on subjects relating to safety, or efficiency and use of fuels and fuel-burning equipment. Schedules indicate the requirements and procedure for testing electrical equipment, gas-detecting equipment, devices for respiratory protection, and explosives for permissibility for use in mines, mainly coal mines. Director's annual reports summarize the Bureau's work in any fiscal year. All of these publications are printed and are sold, if not out of print, by the Superintendent of Documents, Washington 25, D. C., at the price stated.

Reports of Investigations, issued in mimeographed form, quickly make available important data pertaining to special phases of major problems. They are used also to outline briefly the results of original studies on minor problems. Frequently the information contained in these papers is incorporated with additional findings and published in bulletins or technical papers. Reports of investigations are numbered serially, beginning with No. 2000, which was published in February 1919. Information Circulars are short mimeographed papers, similar in form and manner of publication to reports of investigations, that concisely present the principal facts on various subjects. The material may not represent the results of original investigative work and frequently consists of compilations, reviews, abstracts, and discussions. Information circulars are numbered serially, beginning with No. 6000, which was published in December 1925. Before that date, papers of a general informational character were classified as reports of investigations. Periodical reports giving economic and statistical data on solid fuels and on health and safety in solid fuel industries are described in Section 16, Economics and Statistics, page 57. Special reports are issued at intervals to make available data of special and immediate interest. They are not numbered but are designated by title or subject matter. Reports of investigations, information circulars, and other mimeographed reports listed herein are distributed, free of charge, upon written request, by the Bureau of Mines, Publications Distribution Section, 4800 Forbes Street, Pittsburgh 13, Pa.

As there has been a liberal distribution of all Bureau publications throughout the country and to some extent in foreign countries, reports that are now out of print usually may be found in university, technical, and larger public libraries. Likewise, bound volumes of the scientific and trade periodicals in which Bureau of Mines papers appear may be consulted in libraries throughout the country. Dealers of new and secondhand books sometimes have copies of some of the reports.

Microfilm and photoprint copies of American Documention Institute (ADI) documents are available for sale only by the Auxiliary Publications Project, Library of Congress, Washington 25, D. C., at the price quoted. Technical Oil Mission (TOM) reels may be obtained as entire films in microfilm, or enlarged print copies of selected frames may be ordered. For information and prices contact the Photoduplication Service, Library of Congress, Washington 25, D. C. Combined Intelligence Objectives Subcommittee (CIOS) reports are available in microfilm or photostat copies from the Publication Board Project, Library of Congress, Washington 25, D. C.

BIBLIOGRAPHY OF BUREAU OF MINES INVESTIGATIONS OF COAL AND ITS PRODUCTS, 1950 TO 1955

by

E. P. Carman[1] and Frances S. Bayes[2]

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1/ Chemical engineer, Branch of Bituminous Coal Research, Division of Bituminous Coal, Bureau of Mines, Washington, D. C.

2/ Formerly research assistant, Branch of Bituminous Coal Research, Division of Bituminous Coal, Bureau of Mines, Washington, D. C.

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1. GENERAL

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16. ECONOMICS AND STATISTICS

The Bureau of Mines collects and publishes data on bituminous coal, Pennsylvania anthracite, lignite, coke, fuel briquets, packaged fuel, and peat. Data on anthracite and semianthracite outside of Pennsylvania are included in Division of Bituminous Coal statistics for Arkansas, New Mexico, and Virginia.

The periodical reports described below are supplied free on application to the Publications Distribution Section, Bureau of Mines, 4800 Forbes Street, Pittsburgh 13, Pa.

Periodical Reports

WEEKLY COAL REPORT. This report covers the following subjects: Latest weekly and monthly estimates of production of bituminous coal, by States; weekly and monthly statistics of certain major features of coal distribution, including shipments to the Great Lakes, to tidewater, and to New England; and monthly statistics of industrial stocks and consumption of coal.

The Weekly Coal Report was begun July 21, 1917; Nos. 1 to 415 were issued by the Geological Survey; Nos. 416 (July 3, 1925) to 1041 (June 26, 1937) were issued by the Bureau of Mines; Nos. 1042 (July 3, 1937) to 1146 (June 30, 1939) were issued by the National Bituminous Coal Commission; Nos. 1147 (July 8, 1939) to 1361 (August 21, 1943) were issued by the Bituminous Coal Division; Nos. 1362 (August 28, 1943) to 1400 (May 20, 1944) were issued by the Solid Fuels Administration for War; and beginning with No. 1401 (May 27, 1944) the report has been published by the Bureau of Mines.

WEEKLY ANTHRACITE REPORT. This report covers the following Pennsylvania anthracite data: Production estimates (weekly and monthly); distribution (daily and weekly carloadings, No Bill carloadings and shipments via Lake Erie by weeks), monthly shipments by rail and truck, monthly receipts and deliveries (reloadings) at Lakes Superior and Michigan docks, and monthly receipts in New England by tide and rail; monthly consumption by railroads and electric utilities; imports and exports; stocks held at end of month by railroads, electric utilities, retail dealers, and at Lakes Superior and Michigan docks, and those held in producers' storage yards; retail dealer deliveries; wholesale price indexes; and average hourly and weekly earnings and number of hours worked per week.

PRELIMINARY ESTIMATES OF PRODUCTION OF PENNSYLVANIA ANTHRACITE FOR THE MONTH OF_____. One-page release gives preliminary figures on production of Pennsylvania anthracite during the preceding month for the use of statisticians, editors, and others who desire monthly data. This is usually mailed on the fifth day after the close of the month covered. The publication of the production figures of Pennsylvania anthracite as a separate report was begun in January 1954; before that it was included in Preliminary Estimates of Production of Pennsylvania Anthracite and of Beehive Coke.

MONTHLY COKE REPORT (with chart). The following subjects are covered: Production of oven and beehive coke, pig iron, ammonia, crude tar, creosote oil, benzol, toluol, xylol, solvent naphtha, pyridine, and naphthalene; production of coke by regions; production, percent of capacity and stocks of oven coke at plants; coal carbonized during month and coal stocks at end of month at oven-coke plants and coal carbonized during month in beehive ovens; prices of oven and beehive coke, sulfate of ammonia, benzol, toluol, and naphthalene flakes; consumption of oven and beehive coke at producing plants and sales by major uses; sales and stocks of ammonium sulfate, ammonia liquor, benzol, toluol, xylol, solvent naphtha, pyridine, naphthalene, tar, and creosote oil.

Advance summaries of preliminary annual statistics (based upon detailed reports collected monthly (from each producer) are issued as supplements to the Monthly Coke Report. Detailed tables and analyses are later published in the Coke chapters of the Minerals Yearbook.

DISTRIBUTION OF PENNSYLVANIA ANTHRACITE. This report, first published for the 1942-43 coal-year in considerable detail on a collaborative basis with the Solid Fuels Administration for War, is now published annually for each coal-year by the Bureau of Mines and shows the distribution of Pennsylvania anthracite, by sizes, to selected cities, States, and Provinces in the United States and Canada.

DIRECTORIES. Lists of active oven- and beehive-coke operations, fuel-briquetting and packaged-fuel operations, and peat producers, are prepared annually. A list of manufacturers of equipment used in the manufacture of fuel briquets and packaged fuel and in the packaging of these fuels is also issued annually.

INTERNATIONAL COAL TRADE. This is a monthly bulletin. The first issue, titled "Overseas Export Situation," was published by the Bureau of Foreign and Domestic Commerce, October 17, 1923, changed to the International Coal Trade Situation on February 13, 1927, and to International Coal Trade, February 27, 1933. Since July 1935, it has been a publication of the Bureau of Mines, summarizing latest information on the international coal trade. From time to time special articles are included on the reserves, production, and consumption of coal, oil, natural gas, and water power in the various countries of the world and on trends in their energy demand and supply.

MINERAL MARKET REPORTS. Reports on bituminous coal and lignite, containing production data by production districts, as set forth in the Bituminous Coal Act of 1937, in addition to data included in Bituminous Coal and Lignite chapters in the Minerals Yearbook, have been published as Mineral Market Reports beginning in 1942. These data formerly were published by the Bituminous Coal Division as Bituminous-Coal Tables, 1938-39 (issued October 1940 and including data on lignite) and Bituminous- and Lignite-Coal Tables, 1939-40 and 1941 (issued January 1943).

Advance annual summaries of production and distribution of Pennsylvania anthracite, coke, fuel briquets and packaged fuel, and peat (based upon detailed reports collected from each producer at the close of a calendar year) have been published as Mineral Market Reports beginning in 1942.

COAL-MINE FATALITIES. This monthly report, first issued in 1922, describes the causes of fatal accidents in anthracite and in bituminous-coal and lignite mines and the relationship between production, employment, and accidents.

COAL-MINE INJURIES. These monthly reports contain statistics on fatal and nonfatal injuries, employment, and production in anthracite and in bituminous-coal and lignite mines.

HEALTH AND SAFETY STATISTICS. These reports include information pertaining to the various safety contests sponsored by the Bureau of Mines in cooperation with the coal-mining industry, the statistical record of accidents and employment in that industry, and special studies relating to the promotion of safety in coal-mining operations.

Bulletins

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17. MOTION-PICTURE FILMS

Motion-picture films of the Bureau of Mines, listed hereafter, are loaned to educational institutions, industries conducting training classes for workers, engineering and scientific societies, civic and business associations, and other responsible organizations. The films are designed to acquaint the people of the United States with their mineral resources and to show the needs and value of conservation in their production and utilization, the promotion of health and safety of the workers, and the economic development of our natural resources.

Only films that have been added since 1950 and that relate wholly or in part to the mining, preparation, or utilization of solid fuels are listed below. For a complete list of all Bureau films, write to the Office of Mineral Reports, Washington 25, D. C., under whose direction the films are produced and circulated.

The main distribution center for the films is the Bureau of Mines Experiment Station, Graphic Services Section, 4800 Forbes Street, Pittsburgh 13, Pa. All requests for the loan of films should be sent to this address. There is no rental charge for the films, but the borrower must agree to pay transportation costs for the return of the films and to pay for loss or damage other than ordinary wear and tear on the films as determined by Bureau film inspectors. Requests for films should include both the number and title of the film desired. All of these films are in 16-millimeter sound.

Films

1000. BUREAU OF MINES AND THE NATIONAL COAL ASSOCIATION. Powering America's Progress - a Modern Story of Bituminous Coal. In color. Film 244, 25 min., 7 pounds.

Shows modern methods of mining bituminous coal and preparing it for market and the multitude of uses for the Nation's most abundant mineral fuel. Shows mining with up-to-date equipment underground and by surface mining - continuous mining machines; machines that cut, drill, and blast coal before loading out; safe practices in blasting, roof-testing, and timbering; preparation and marketing of coal. Portrays uses of coal as an industrial and domestic fuel, in steelmaking, in the chemical industry, and in research by the Bureau of Mines in its synthetic fuels and underground-gasification projects.

1001. BUREAU OF MINES AND THE TEXAS GULF SULPHUR CO., INC. Texas and Its Natural Resources. In color. Film 216, 27 min., 7 pounds.

Film shows how American determination and ingenuity, combined with abundance of natural resources, wrought miracle of modern industry and made Lone Star State one of most prosperous and progressive in Union.

Hardships and primitive life of pioneer days are contrasted with manmade beauty of modern cities and complexity of modern industry. Petroleum and natural gas are treated extensively in film, which also covers such important byproducts as synthetic rubber, carbon black, helium, and petrochemicals. Laboratory scenes show how helium is extracted from natural gas, and animation is used to explain mysteries of chemical formation. As most of Nation's sulphur output comes from Texas, film shows how this golden mineral is mined, stockpiled, and finally shipped to all parts of the world. Other interesting scenes deal with production of magnesium metal from waters of Gulf of Mexico, iron ore for steel, and lignite to make power for aluminum production. Texas agriculture, from great wheat fields of Panhandle to lush citrus region of Rio Grande valley, is depicted. Included are scenes of cotton picking, sorghum cultivation, and truck farming. Lumber, cattle, and sheep industries are pictured, as well as waterways and freshwater resources indispensable to agriculture and industry alike.

1002. BUREAU OF MINES AND THE WEIRTON STEEL CO., (a subsidiary of the National Steel Corp.). West Virginia and Its Natural Resources. In color. Film 241, 32 min., 8 pounds.

Theme: How man has built an industrial empire in the mountain wilderness of West Virginia, based on an abundance of coal, water, petroleum, and other natural resources. Vivid color photography reveals a fine balance between industry and agriculture. Brief scenes of operations in underground coal mines; steel mills utilizing West Virginia coking coal and limestone; the world's largest nickel plant; the production of fine cyrstal ware, stained glass, and more than half the children's marbles from West Virginia glass-sand deposits; the great chemical industries of the Kanawha Valley, built upon West Virginia coal, oil, natural gas, and brine; lumbering operations in the State's hardwood forests; and wildlife roaming the woods, as in the days of Daniel Boone. Flashbacks transport the viewer to the days when the area was the "Western Wilderness." Shown also are: State parks; rushing streams providing power and recreation; idyllic views of peach and apple orchards; and thousand and one contrasts characteristic of modern West Virginia, which produces more bituminous coal than any other State in the Union.

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